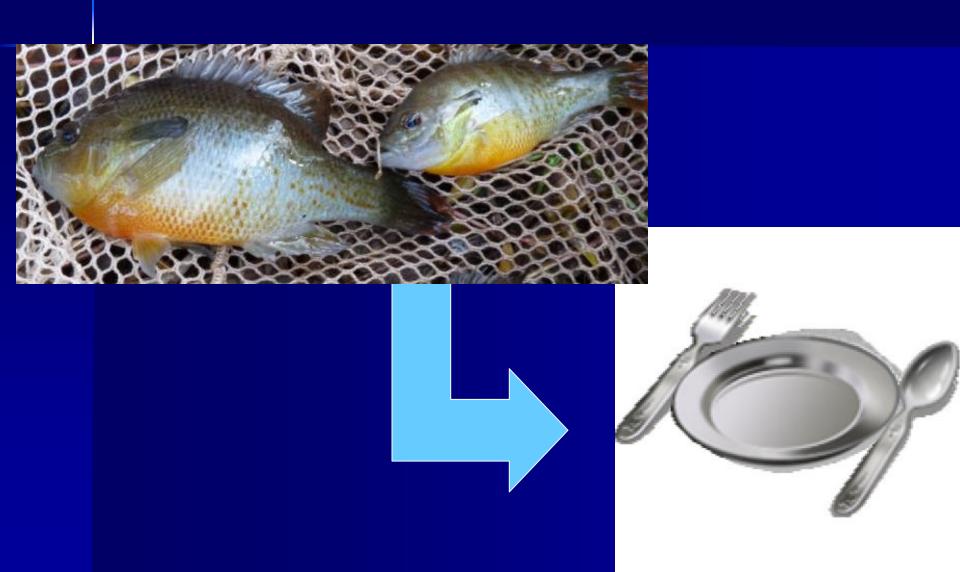
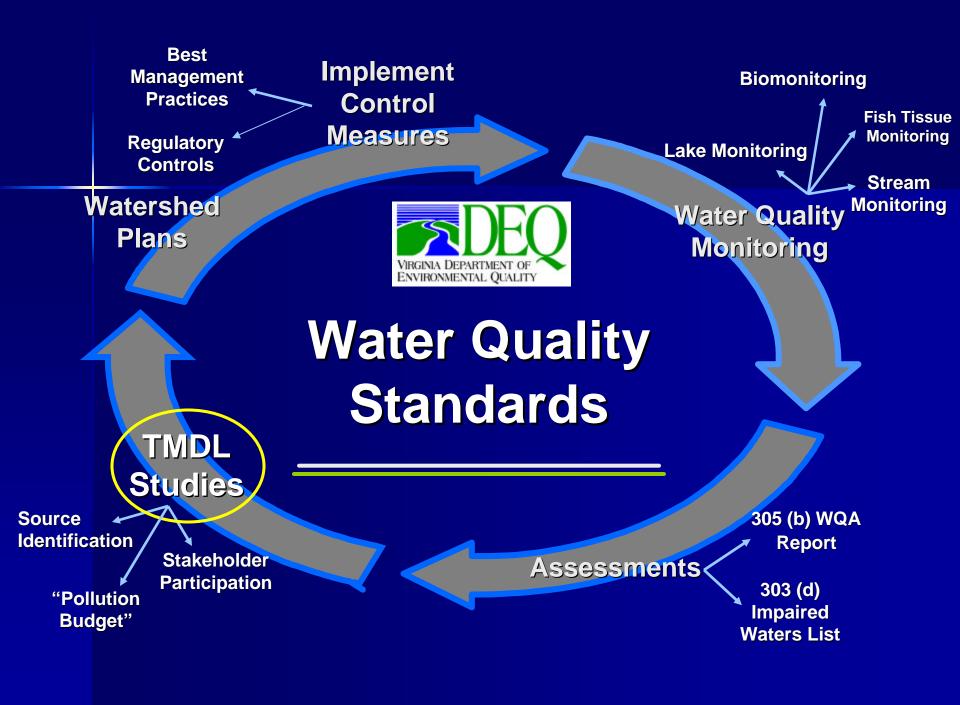


Why are We Here?





TMDL Studies

TMDL = **TOTAL MAXIMUM DAILY LOAD** or The Amount of Pollution A Stream Can Receive and Still Meet Water Quality Standards

$$TMDL = S WLA + S LA + MOS$$

- Identifies All Sources of Pollution
 - point sources (direct industrial discharges, STPs)
 - non-point sources (indirect runoff)
- Public participation!
- Use available data and watershed models to
 - Calculate the amount of a pollutant entering the waterbody from each source
 - Determine reductions in pollutants needed to attain/maintain Water Quality Standards
 - Assign Wasteload Allocations (WLAs)
- Public participation!

TMDL Studies

THE LEGAL EXPLANATION

- 1972 Clean Water Act (CWA) and 1997 Water Quality Monitoring, Information, and Restoration Act (WQMIRA)
 - 1. Monitor and Assess Water Quality
 - 2. Periodically List streams that are NOT meeting Water Quality Standards
 - 3. Develop TMDLs for Impaired Waters
 - 4. Implement TMDLs

VA Department of Health Fish Consumption Advisory: New River



New River from below Claytor Lake Dam downstream ~ 68 miles to the VA/WV state line near the town of Glen Lyn in Giles County, VA (8/6/01; modified 12/13/04)	Giles Co., Montgomery Co., Pulaski Co. and Radford City	Carp	DO NOT EAT
		Flathead Catfish	No more than two meals per month
		Channel Catfish	
New River/Claytor Lake from the Rt. 77 bridge near Jackson Ferry	ge near Jackson Ferry Instream to Claytor Lake Dam Inding its tributaries Peak Creek up The confluence with North Fork It K Creek (Tract Fork) in Pulaski It Reed Creek up to the confluence It Meadows. These river segments	Carp	
downstream to Claytor Lake Dam including its tributaries Peak Creek up to the confluence with North Fork Peak Creek (Tract Fork) in Pulaski and Reed Creek up to the confluence with Miller near Rt. 121 bridge near Max Meadows. These river segments comprise ~68 miles. (12/13/04)		Smallmouth Bass	No more than two meals per month

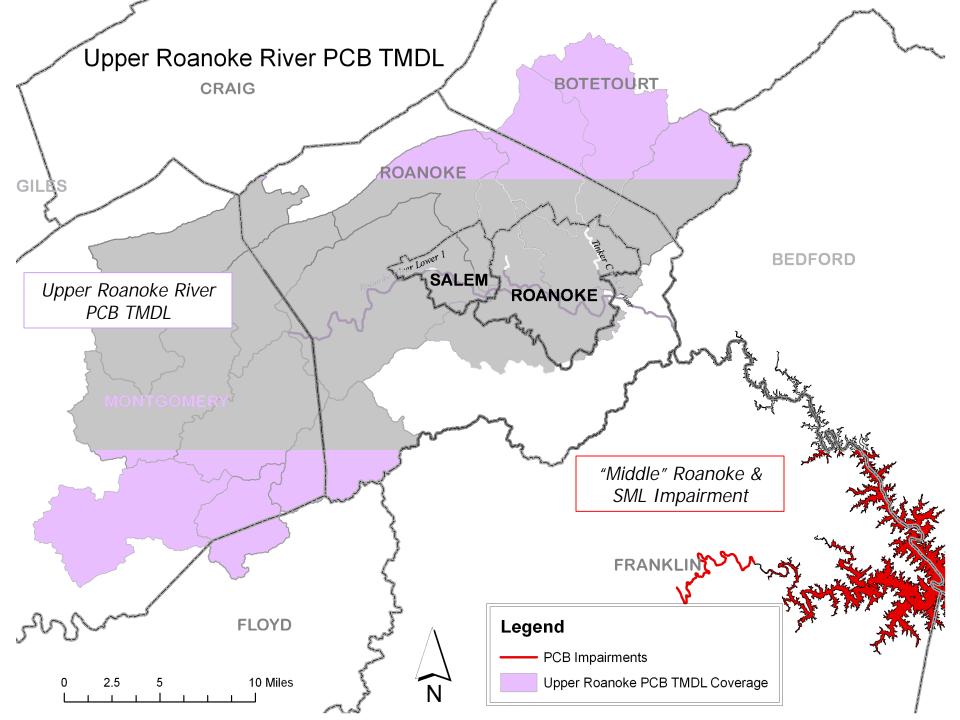
http://www.vdh.virginia.gov/epidemiology/dee/publichealthtoxicology/Advisories/NewRiver.htm

VA Department of Health Fish Consumption Advisory: Roanoke River



Roanoke River (upper section) from the confluence of North and South Fork Roanoke River near Gaging Station at Lafayette downstream to Niagara Dam including its tributaries Peters Creek up to Rt. 460 bridge crossing and Tinker Creek up to the confluence with Deer Branch Creek near Rt. 115. These river segments comprise ~37 miles. (12/13/04)	Montgomery Co., Roanoke Co., Salem City and Roanoke City	Carp Redbreast Sunfish Redhorse Sucker species Smallmouth Bass Largemouth Bass Rock Bass Bluehead Chub	No more than two meals/month
		Flathead Catfish = 32 inches	DO NOT EAT
Roanoke River/Smith Mountain Lake from below the Niagara Dam on Roanoke River downstream to Smith Mountain Dam including Blackwater River arm up to the Rt. 122 bridge. These river segments comprise ~13 miles. (10/20/03; modified 12/13/04; 7/27/05)		Flathead Catfish < 32 inches	
	Roanoke Co.,	Striped Bass	
	Bedford Co., Franklin Co. and	Gizzard Shad	
	Pittsylvania Co.	Redhorse Sucker species	
		Largemouth Bass	meals/month
		Carp	
		Channel Catfish	

http://www.vdh.virginia.gov/epidemiology/dee/publichealthtoxicology/Advisories/RoanokeRiver.htm





Next Steps

The Department of Environmental Quality (DEQ) is beginning the process of developing a Total Maximum Daily Load (TMDL) for Polychlorinated Biphenyls (PCBs) in your watershed. The TMDL is needed to address the PCB fish consumption impairments. In order to identify all possible sources of PCBs and to develop existing loads for those sources, low-level PCB monitoring of selected VPDES permitted outfalls that discharge into impaired waters must be performed in accordance with the schedule in Table 1 below. Your facility has been selected based on the SIC code submitted with your registration.

Table 1	PCB	Monitoring	Schedule b	y River Basin

River Basin	1 st Sample Due	ie 2 nd Sample Due TMDL Development D	
Or Reservoir			_
Roanoke**	January 10, 2011	January 10, 2012	2010
Smith Mt. Lake	January 10, 2012	January 10, 2013	2014
Blackwater River	January 10, 2012	January 10, 2013	2014
Kerr Reservoir	January 10, 2012	January 10, 2013	2014
Lake Gaston	January 10, 2014	January 10, 2015	2016
Dan ***	January 10, 2012	January 10, 2013	2014
New	January 10, 2012	January 10, 2013	2014
James	January 10, 2014	January 10, 2015	2016
Jackson	January 10, 2018	January 10, 2019	2020

^{*} This date is subject to change! You will be notified of any change in the required submittal dates.

*** The Dan River drainage upstream of Stateline Road near Berry Hill is excluded. The Banister River and Banister Lake drainages above Bannister dam are excluded.

Sampling and laboratory analysis of low-level PCBs requires the use of specialized sampling and analytical techniques which are outlined in the attached guidance memorandum (also see http://www.deq.virginia.gov/tmdl/pcb.html). While DEQ cannot recommend a specific testing laboratory, a list of qualified laboratories using performance based EPA Method 1668 (current version) is also attached. Low-level PCB monitoring costs more than less sensitive methods. However, substantial cost savings can be achieved if facilities work together. Generally, analytic costs decrease as the number of samples increase. Therefore, facilities can collect their own samples and submit them as a group (batch) to an approved laboratory for subsequent analysis. Failure to generate these data using the prescribed approach shall result in the derivation of estimated PCB loads for TMDL development. Implementation of the TMDL will require the samples be collected to validate the estimated PCB load and to determine if the effluent is in compliance with the Waste Load Allocation (WLA). Data should be submitted electronically following the method described in Appendix E of the attached

^{**} Pigg River and Leesville Lake drainage excluded.

Next Steps

Table 1. PCB Monitoring Schedule by River Basin			
River Basin	1 st Sample Due	2 nd Sample Due	TMDL Development
Or Reservoir			Date*
Roanoke**	10-Jan-2011	10-Jan-2012	2010
Smith Mt. Lake	10-Jan-2012	10-Jan-2013	2014
Blackwater River	10-Jan-2012	10-Jan-2013	2014
New	10-Jan-2012	10-Jan-2013	2014
Jackson	10-Jan-2018	10-Jan-2019	2020

^{*} This date is subject to change! You will be notified of any change in the required submittal dates.

^{**} Pigg River and Leesville Lake drainage excluded.

^{***} The Dan River drainage upstream of Stateline Road near Berry Hill is excluded. The Banister River and Banister Lake drainages above Bannister dam are excluded.

The Goal ...

